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Indian Standard
SPECIFICATION FOR
POULTRY WATERERS, PORTABLE

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR POULTRY WATERERS, PORTABLE

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Indian Standard

SPECIFICATION FOR POULTRY WATERERS, PORTABLE

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 22 September 1969, after the draft finalized by the Animal Housing and Equipment Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 The practice of keeping poultry inside a shed at all times on deep litter, necessitates to keep the watering system in such a way that water does not spill into the litter since the spillage of water may create serious problems in maintaining the litter dry which is very important for the health and comfort of poultry.

0.3 The aim while formulating this standard has been to avoid giving dimensional or other requirements which would tend to restrict variation in design and instead to concentrate on good performance of the waterers.

0.4 While preparing this standard, assistance has been derived from B.S. 3872 : 1965 'Specification for poultry watering appliances' issued by the British Standards Institution.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the requirements and the methods of test for poultry waterers which are self contained and portable for flock watering, but does not deal with waterers for battery brooders and other similar equipment.

1.2 This standard covers the waterers fed from storage cisterns as well as those from direct mains connection.

*Rules for rounding off numerical values (*revised*).

2. MATERIALS

2.1 The materials of construction shall be 1.60 mm galvanized iron sheet for the frame and copper or brass for ball valves, if used. The stand may be of angle iron. The use of thicker galvanized iron sheets or aluminium of equal strength is not precluded.

2.2 The materials used shall be either in themselves resistant to corrosion by potable water and other conditions of use, or shall be protected against corrosion by some suitable means and shall pass the test prescribed in 6.1.

3. REQUIREMENTS

3.1 Leakage — The waterer shall not leak when filled with potable water to the normal level for 10 minutes.

3.2 Construction

3.2.1 The waterers shall give free access to the poultry for drinking and be so designed as to avoid spillage. This may be achieved by providing a wire guard over the water trough.

3.2.2 The design of the waterer shall be such as to prevent, as far as possible, the birds from perching in such a position that the water may become fouled. Compliance with this requirement may be achieved by means such as spinners or similar devices or by the shaping of the top of the waterer or wire guard.

3.2.3 The waterer shall be designed so that the birds may approach either all round it or from two opposite sides according to whether the waterer is cylindrical or long and narrow.

3.2.4 The waterer may be on feet to stand on the floor or arranged for suspension. Suspension devices shall be easily adjustable for height to suit the growth of the birds and shall be sufficiently robust to serve throughout the life of the waterer. Troughs may be adjustable on the frame carrying them.

3.2.5 The assembled waterer shall be rigid when in use but its component parts shall be readily detachable for cleaning purposes. Effective means shall be provided for cutting off the water supply during cleaning of the waterer.

3.2.6 Hanger sets in the form of troughs shall not sway at their ends and shall be easily adjustable *in situ* to suit the growth of the birds.

3.3 Additional Requirements

3.3.1 Storage-Cistern-Fed Waterer

3.3.1.1 The waterer shall have a positive means of water shut-off, suitable for operating with a water supply from a storage cistern. This

may be a direct operating ball valve, or any other not less effective device; for example, a valve controlled by the water level in the trough or the weight of water in the trough and operating by balance or another form of control that prevents overfilling above a marked position, when properly adjusted and maintained in accordance with the manufacturer's instructions.

3.3.1.2 An overflow shall not be fitted to this type of waterer.

3.3.1.3 The water level control shall be so arranged that it is effectively protected from derangement by the poultry or by unauthorized persons unless the latter deliberately damage the waterer in some manner.

3.3.1.4 A typical storage-cistern-fed waterer is shown in Fig. 1.

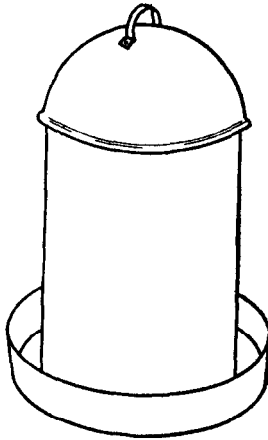


FIG. 1 TYPICAL STORAGE-CISTERN-FED WATERER

3.3.2 *Mains-Fed Waterer*

3.3.2.1 The waterer shall be supplied with water through a ball valve, or other not less effective device, for controlling the inflow of water, securely and rigidly fixed to the waterer.

3.3.2.2 The level of the point of discharge of the ball valve or other device shall be not less than 2.5 cm above the top edge of the waterer (the 'top edge' shall mean the highest level to which water may rise in the waterer).

3.3.2.3 The ball valve or other device shall be effectively protected against damage, contamination and unauthorized interference. The fitting of a ball valve or other device within a compartment with a cover provided with a lock and removable key or with a nut and bolt fastening shall be accepted as complying with this requirement.

3.3.2.4 A typical mains-fed waterer is shown in Fig. 2.

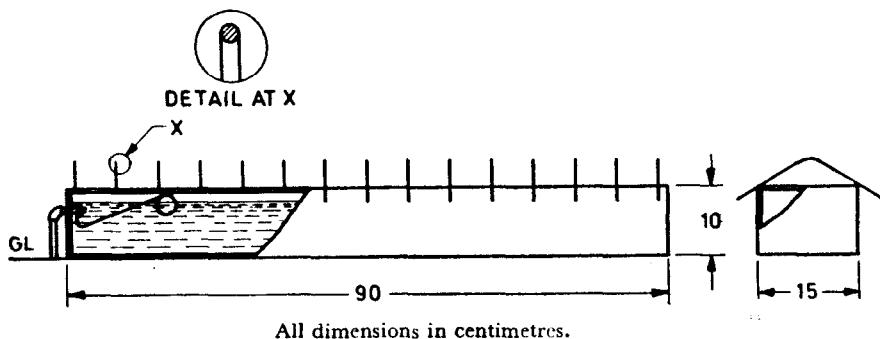


FIG. 2 TYPICAL MAINS-FED WATERER

4. FINISH

4.1 Frames and parts not directly in contact with the water, if of steel, shall be galvanized or be not less suitably finished against corrosion. Troughs and parts in direct contact with the water, if of steel, shall be either hot-dip galvanized after manufacture or vitreous enamelled. Angle iron or other steel parts of substantial section thickness forming the feet and parts of the frame may be treated with stoved enamel as an alternative to galvanizing. Any timber used in the construction shall be treated with a suitable preservative. Other metals, for example, aluminium, shall only be used in areas where they are unaffected by the water supplied in those areas.

5. MARKING

5.1 Unless specified otherwise, each waterer shall be marked, clearly and indelibly, with the following:

- a) The name of manufacturer or trade-mark,
- b) Storage-cistern-fed or mains-fed waterer, and
- c) Any necessary instructions for installing and operating the number of birds served.

5.2 The waterers may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by

the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

6. TEST

6.1 Corrosion Resistance Test — The prototype waterer shall be exposed in filled condition for 12 weeks in an intensive house which is in normal use and situated at a recognized testing centre.

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